Here is a suggested course of review for the upcoming semester exam. Students will sit this assessment on December 18 from 9-11am. Any topic which was covered in Problem Sets 1-25, or the three labs (all semester) could be on the assessment.

The questions below are good places to look for extra practice, but the other good study tool is to go back over some of the questions from the **Problems sets**, and to review the three **major assessments.** 

## T1 - Numbers and Algebra

# Binomial Expansions, Arithmetic and Geometric Sequences - (T1.2; T1.3; T1.9)

Oxford, p.188 Exercise 60 #1-8 P.189 Review Exercises Calculator Inactive 1-4,6,8,9 Calculator Active 1-9

# **Geometric/Arithmetic Sequences and Series**

Cirrito, 8.2 #1,3,6,7 p.255

## T2 - Functions

### Functions, composites, inverses, and solving systems - (T2.2; T2.5; T2.10)

Oxford, p.25 Review Exercises
Calculator Inactive #1-13
Calculator Active #1-10
Cirrito, 5.4.1, #1-22, p.154 OR Oxford, 1F, p16, Q3-6
5.4.2 #1-16, p.164 OR Oxford, 1H, p20, Q2

### **Function Transformations (T2.11)**

Cirrito, 6.1, #2,9,10, p.174 6.2, #3,4, p.181 6.3, #1,2, p.186

# **Exponential and Log Functions**

Cirrito 7.4, p227, do a few from Q1,2,4,6 Cirrito 5.3.4, p142, do a few from Q2,3

## **Annuities**

See Lab 3

# T3 - Trigonometry and Geometry

### **Shapes**

Cylinders, Spheres, Cones, boxes and pyramids (see questions in problem sets)

# Trigonometry, Sine Rule, Cosine Rule, Area of Triangle - (T3.2; T3.3)

Oxford, p.398 Review Exercises

Calculator Inactive #1,2,3,4

Calculator Active #1,3,4,5,6

# Non-Right Triangle Trigonometry (Bearing, Angle of Elevation and Depression)

Cirrito, 9.2 #1-13, p.281

## Sinusoidals (continuing on the trig theme ......)

Oxford 13.7, p487, Q1-4

# Calculator Inactive Trigonometry (T3.5)

Cirrito, 10.1, #3,4,14,15, p.324

## Calculator Inactive Trigonometry (T3.5)

Cirrito, 10.1, #3,4,14,15, p.324 Oxford 13 Review, p488, Q1,2,3

#### **T4 - Probability and Statistics**

### <u>Probability, Venn Diagrams, Tree Diagrams, Conditional Probability - (T4.5; T4.6)</u>

Oxford, p.94 #5, p.95 #2,3,4,5

#### Linear Regression and Cumulative Frequency (T4.2, T4.4)

Oxford 8G, p273, Q1,6,7

Oxford 10E, p347, Q1-5

#### Venn Diagrams/Symbolic Probability

Oxford 3.2, p75, Q5-9; p77, Q2,4; p83, Q12,13